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ABSTRACT

The relationship between separate dimensions of vocational maturity and different self-concept and identity variables were examined. Subjects were Dutch students, age 14-18 years. The vocational maturity dimensions were measured by Dutch adaptations of American vocational maturity scales. Instruments for self-concept and identity measurement were developed. The first study looked at whether differences in self-concept content correspond with differences in vocational maturity. Findings indicate that students who view themselves as intelligent, accurate, industrious, well-mannered and business-like are the most vocationally mature. The second relationship studied was between vocational maturity and self-esteem. It was hypothesized that high self-esteem people would be more certain about occupational choice and more ready to decide. This hypothesis was confirmed. The variable Planning Orientation has a positive, (but not statistically significant) correlation with self-esteem. The final relationship examined was between vocational maturity and identity aspects. Results indicate that vocational maturity is more related to internal than external identity. Knowing and accepting oneself is found to be of more importance for vocational planning and decision-making than being certain of one's public self-definition. These results underline the importance of guidance and counseling for self-knowledge and acceptance. (Author/JLL)

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VOCATIONAL MATURITY AND SELF CONCEPTS

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VOCATIONAL MATURITY AND SELF CONCEPTS.

(Report version: tables inserted into text;
printing errors in tables corrected;
minor modifications for more clarity;
a few comments added)

Introduction

In this paper I will report on an empirical study about relationships between vocational maturity and self concepts.
It is well known that both kinds of variables are important in Super's theory of vocational development. In that theory, vocational choice is seen as a translation of self concepts into occupational terms and as an implementation of that occupational self concept. This process is considered to be one of the cornerstones of the development that leads to vocational maturity.
It means, in other words, that becoming vocationally mature implies crystallization of the picture one has of oneself as a person in relationship to the world of work. That includes defining one's own position with respect to the role of the worker in general, stabilizing one's preferences for certain types of work and making at least a preliminary choice for a future work role. (Super et al, 1963).
There are other authors who have stressed the importance of the self in vocational development and decision making, too.

Korman (1966, 1967, 1969) investigated self esteem as an intervening variable in vocational choice.

Erikson (1968) considers occupational choice to be one of the important commitments that have to be made in order to achieve a sense of personal identity. This sense includes having a feeling of inner sameness and continuity. It goes together with having defined one's personality in a way that is recognized by other people.

The main question for the present study is: What are the relationships between separate dimensions of vocational maturity and different self concept and identity variables?
The vocational maturity dimensions were measured by Dutch adaptations of American vocational maturity scales. The instruments for self concept and identity measurement were developed by myself in cooperation with a number of

graduate psychology students at the University of Amsterdam.

There will be three parts to this paper.

First I will give a brief overview of the vocational maturity scales used. In the second part, I am going to explain the self concept instruments, and lastly I will discuss the results of the study about the relationship between vocational maturity and self concepts.

1. Vocational maturity instruments

For the measurement of vocational maturity, five scales were used. They are mentioned in table 2, which also provides some statistics. Except for the Insight scale, the third one in the table, all these instruments have been developed already in earlier studies. I have described that project during the 1974 I.C.A.P. Conference in Montreal and thus will give only a summary here. (Helbing, 1974)
Since the Insight scale is new, I will tell more details about its development.

Before discussing the separate scales, I want to say that the original American scales were all highschool versions. Holland does not have that type of school. Therefore we had to decide about the Dutch population to which the tests should be adapted.
Table 1 gives a scheme of the structure of the Dutch educational system. I hope that it makes clear that after the elementary school, children are distributed throughout a number of schools of unequal academic level and length.
The double line indicates for which population we have made the Dutch vocational maturity tests applicable. In age, it is comparable to the highschool group, but it includes different school types and programs.

Table 1: Dutch educational system.

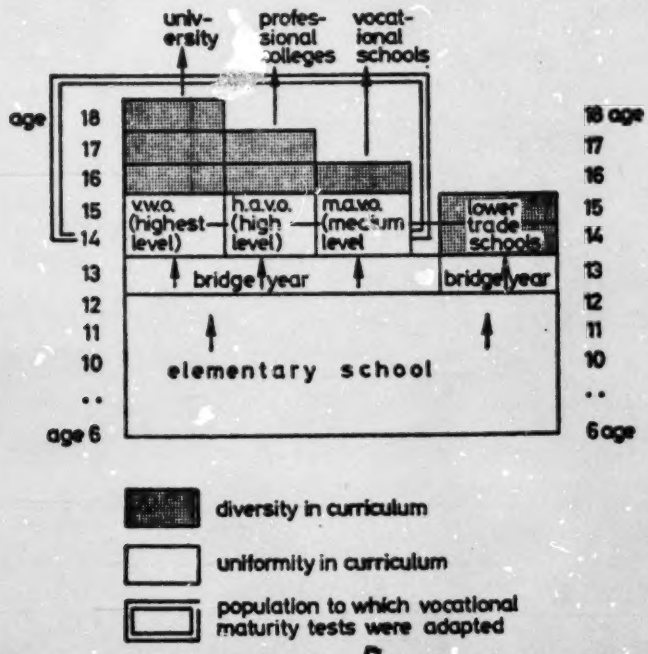

Table 2: Vocational Maturity Scales

	Number of items	Item score minimum	Item score maximum	Mean	Stand. Deviation	Coefficient Alpha	Project number
Career Development Inventory							
Dutch adaptations							
Planning Orientation (C.D.I. A or 1)	30	1	5	91.68	18.29	.89	1
	30	1	5	89.07	18.60	.91	3
Resources for Exploration (C.D.I. B or 2)	23	1	5	65.51	11.46	.81	1
	26 [1]	1	5	71.79	12.39	.82	3
Insight into Criteria and Factors for Vocational Planning (C.D.I. 3 and 4 combined)	27	1	2	43.86	4.93	.79	3
Opinions about Career Choices							
Concern about Choice	19	1	6	90.47	14.70	.84	2
	18 [2]	1	6	85.74	10.92	.82	3
Indecision	19	1	6	60.91	17.90	.87	2
	20 [2]	1	6	61.45	15.08	.91	3

Projects:

Number 1: 1973, N = 742, 15-18 years, J.C. Helbing, J. v.d. Bel, P. Koolen (Nederlands Instituut voor Beroepskeuzebegeleiding)

Number 2: 1974, N = 615, 15-18 years, J.C. Helbing, G. Versolato, F. Rijnders.

Number 3: 1978, N = 263, 14-18 years, J.C. Helbing, Th. van Willigenburg.

1) 3 items added to make the mentioned types of resources in two different subscales exactly the same.

2) Cluster analysis of the O.C.C. items in project 3 led to the conclusion that one item had to be transferred from one scale to the other. With that exception, the results of project 2 were confirmed in this new study.

The first two scales mentioned in table 2 are equivalents of scales A (or 1) and B (or 2) of the Career Development Inventory. Direct translations into Dutch proved successful with these instruments. Sometimes items were not applicable to the Dutch school situation, but in cases like that, completely new questions were made as equivalent as possible to the original ones.

In Planning Orientation, a student has to make estimates of his amount of knowledge about his preferred occupation. What does he know about ways of entering this profession and about the education and training needed? Also he has to indicate how much thought he has given to his occupational choice. If he gets a high score on this scale, he has made plans and knows what he will do.

In Resources for Exploration, a student will tell how much he knows about career guidance services and to what degree he used them in preparation to his choice of school or occupation.

Examples of items are:

- Visit meetings for occupational and educational information
- Ask career information officials for help.

The third scale, called Insight into Criteria and Factors for Vocational Planning is a combined adaptation of the parts 3 and 4 of the new, as yet unpublished, Form III of the highschool version of the C.D.I., which was provided by Dr. Super.

We did not start with he idea of combining, but first tried out separate revisions of each scale.

Part 3 (Career Decision Making) is subtitled "What to consider and do" and presents 30 cases of career choice problems with multiple choice answers.

Part 4 (Career Development Information) also has 30-multiple choice items. It is testing knowledge of factors that are important in making career decisions, like exploration, knowledge about oneself, life career time tables, education and causes of job satisfaction and success.

In a pilot study, we gave the translations of the original scales to a group of 85 secondary school students and did item-analysis. Because in both scales there was a considerable number of item-test correlations below .20, we tried to improve by rewording alternatives and by constructing new items.

The second versions were used in the main study of this project. It was done with 263 students in the third, fourth, and fifth year of two schools

with different levels of secondary education. 137 were boys, 126 girls.
This time, because of low item-test correlations, part 3 could not be extended any more than to 12 items with an internal consistency of .59.
In the same way, part 4 was reduced to 18 items with a K.R. 20 coefficient of .74. It was also found that some of the items in part 3 had higher correlations with part 4 than with the sumscore of their own scale.
The correlation between the sumscores of the net versions of both parts was .58.
It is not surprising therefore that in a factor analysis with different vocational maturity scales, the separate versions of 3 and 4 both loaded significantly in the same factor. You will see this in the second column of table 4.

For the purposes of this project, we preferred one longer and more homogeneous scale over two shorter and less reliable ones.
Therefore 18 items of part 4 were combined with 9 of part 3. This 27-item test has an internal consistency of .79. "Insight into factors and criteria for vocational planning" is the name that tries to express the common denominator of these items.

The fourth and fifth scale in table 2 together form an inventory that we gave the name Opinions about Career Choices. It presents a number of statements and asks the respondent to rate on six point scales to what degree they apply to him.
The development of these scales has been described more elaborately in the Montreal conference. It started with a Dutch adaptation of the Vocational Development Inventory of Crites. Because the original items of that scale dealt with occupational choice in particular, and I wanted to construct an instrument that could also be used with career guidance in school settings, we formulated a number of new Dutch items with respect to attitudes about the choice of school subjects.
In the further development of this test, three versions were constructed and analyzed in succession.
Cluster- and factor-analyses were used to investigate the homogeneity of these versions. We ended up with three independent scales, that were only partly corresponding with the Vocational Maturity factors that were hypothesized by Crites.
Two of these scales were used in our present study.

Concern about Choice may also be called Involvement.
Representative statements are, for example:

- Choosing an occupation is one of the most important decisions in your life.
- I do not think much about the choice of school subjects, further education or an occupation, because I don't care.

The last scale is called Indecision because most of the items are about being undecided on the choice of an occupation or education. Examples are:

- There are so many occupations that can be chosen that I cannot reach a decision.
- I have not yet an idea which occupation will fit me best.

Undecided respondents get the higher scores here.

In table 3 you will find the correlations between the 5 vocational maturity scales. Above the diagonal the data are given from the Montreal report. Below is the information from the present study.
Incidentally, both groups consisted of the same number of students.
In this table - and also in the ones still to follow - .12 is a correlation different from zero at the .05 level of significance (two tailed).

As you will see, most of the correlations turn out to be rather similar in both studies. Two correlations between different scales within the same

Table 3: Correlations between Dutch Vocational Maturity Scales.

	CDI-1: PLANNING	CDI-2: EXPLOR.	CDI-3/4 INSIGHT	OCC-CONCERN	OCC-INDECISION
CDI-1: PLANNING		.27	-	.41	-.52
CDI-2: EXPLORATION	.47		-	.32	-.05
CDI-3/4: INSIGHT	.02	-.01		-	-
OCC-CONCERN	.35	.27	.15		-.21
OCC-INDECISION	-.52	-.09	-.08	-.35	

Above diagonal: 1973, N = 263, 16-17 years (J.C. Helbing, G. Versolato)
Below diagonal: 1978, N = 263, 14-18 years (J.C. Helbing, Th. van Willigenburg)

instruments are definitely higher in the more recent project than in the older one, however. The correlation between Planning Orientation and Resources for Exploration is now .47 compared to .27 in 1973.
Concern correlates -.35 with Indecision, while the first results showed only -.21. There is no information that could provide an explanation for these differences.

You will also notice in table 3 that the new scale Insight does not correlate strongly with the other vocational maturity variables.
That was already clear from table 4.
Let us look again at that table.
The factor analysis with all the scales, in which the separate CDI 3 and 4 versions were still kept separate, shows 2 main factors.
The first one can be interpreted as mental readiness and anticipation on career choice. It is most clearly expressed as planning orientation.
The other factor can of course be given the name Insight into Criteria and Factors for Vocational Planning.

Table 4: Factor analysis of Dutch Vocational Maturity Scales.

1978, N = 263, 14-18 years (J.C. Helbing, Th. van Willigenburg)

Principle factors:	Eigenvalues:	% of Variance:
2 eigenvalues	1. 2.09	1. 34,8
greater than 1.	2. 1.57	2. 26.2
		61.0

Varimax rotation 2 factors:

	Factor 1 (58% of variance)	Factor 2 (42% of variance)
CDI 1: Planning Orientation	.93	-.04
CDI 2: Resources for Exploration	.45	-.05
CDI 3: Insight 1 (Career Decision Making)	.03	.71
CDI 4: Insight 2 (Career Develop-		

II. Self concept and identity instruments.

There are two kinds of tests: the first one is an inventory for self description on personality traits and capacities.
In the second test, the respondent evaluates himself as a person on a number of non-content dimensions, like self-esteem, self-knowledge and a few more that I will discuss soon.
The self concept content test is called Personal Characteristics Profile.
The PCP counts 122 semantic differential scales that are defined by adjectives or little expressions at each scale end.
Between the two scale ends are the numbers 1 to 9. By circling a number, the respondent indicates how far he sees himself removed from each of the scale ends.
For example, in the scale accurate-not accurate 1 means very accurate, 5 moderately accurate, and 9 very inaccurate. To prevent response sets, the scale ends are different; sometimes socially desirable traits have high scores, sometimes undesirable ones.

The scales are combined into 31 clusters. Each clusterscore is the summation of the scale-scores on 3 to 6 scales that are similar in meaning. They correlated at least .40 with each other and no more than .80. The internal consistency coefficients of the clusters are all between .71 and .93. The correlation between the clusters never exceeds .70.

The PCP is constructed to cover a broad domain of traits that are relevant in case of self evaluation for career choice. Before the test was made, pilot studies were done to secure that the traits used were part of the students vocabulary.
In addition it was checked that they were relevant for vocational choice, represented relatively stable traits and were not too socially desirable or undesirable.
Moreover research has been done to secure that the adjectives used at both ends of the polar scales were not only antonyms but also psychological opposites.

In fact the test was constructed in the following four phases:

1. Selection of traits;
2. Identification of psychological polarities;
3. Construction of clusters of trait-scales by means of cluster-analysis;
4. Construction of inclusive scales, each built up from a number of clusters on the basis of factors, identified by factor analysis.

Table 5: Selected cluster- and factor-sumscores in Personal Characteristics Profile.

Factor (3)	Cluster (31)	Number of scales (122)
I		
Prominent and	Independent	3
dominant social	Assertive	4
behavior	Sly	4
(8)	Optimistic	4
	Self confident	4
	Energetic	4
	Organizational ability	4
	Not in the background	6
II		
Reference to	Accurate	4
behavioral	Not changeable	3
norms	Zest for work	4
(5)	Obedient	4
	Well mannered	4
III		
Attitude	Emotional person	4
towards	Sympathizing	4
others	Not suspicious	4
(5)	Friendly	4
	Tolerant	4
Miscellaneous	Intelligent	4
(13)	Manual dexterity	4
	Business-like	4
	Technical	4
	Linguistic feeling	3
	Good at sports	4
	Turn for mathematics	4
	Good at acting	4
	Artistic ability	3
	Turn for music	4
	Generous	4
	Not short tempered	4
	Ambitious	4

In this way I have been working towards a hierarchical and pyramidical type of set-up, in which the sample of characteristics from the domain of vocationally relevant traits forms the base, clusters the medium level and three factor scales the top. These three factor-scales correlate zero with each other.

An overview of all the PCP scores is given in table 5. It is based on results with the 8th test version. As can be seen, the three factors include personality traits only. A number of other personality traits and capacities that do not load highly in the main factors are kept apart in the category miscellaneous.

Each cluster is named after the adjective with the highest average correlation with the other traits in the same cluster; or in other words, after the most representative adjective.

The PCP is not published as yet. (Helbing, 1977).

While the PCP-scales measure self concept content aspects, the Global or General Self Evaluation Scales are instruments for the measurement of the general, non-specific notions and feelings an individual has about himself. By means of this approach we come close to Super's theoretical concept of metadimensions of self concepts and also to Erikson's ideas about identity achievement. Although theoretical positions have been kept in mind continuously, during the test construction the emphasis has been laid on finding self evaluation dimensions that are distinguishable by the respondent and can reliably be measured.

The construction of this test battery is not finished yet.

The scales that have been developed so far and used in this project, are mentioned in table 6.

I will discuss them briefly one by one. In fact, all the items are combined into one inventory. It presents a number of statements to the respondent, who has to rate on a 7-point scale the extent to which the statement is valid or applicable to himself.

Table 6: Global Self-Evaluation Scales.

1978, N = 263, 14-18 years (J.C. Helbing, F. Oonk)

	Number of items	Mean	Standard Deviation	Coefficient Alpha	Range of magnitudes of correlations between items.
Self Esteem	16	78.92	14.00	.93	.05 - .74
Self Acceptance	6	27.00	5.81	.77	.24 - .48
Inner Contradictions	7	20.21	8.05	.82	.28 - .48
Consistency	5	21.77	5.12	.60	.07 - .37
Self-Knowledge	6	30.34	5.43	.64	.16 - .31
External Identity	11	42.71	9.15	.80	.07 - .48
Need for Regard	15	53.60	12.49	.85	.02 - .74

Self Esteem is a Dutch adaptation and elaboration of the Rosenberg Self Esteem Scale (Rosenberg, 1965), which is a measure of global self esteem. It is the first of our self evaluation scales that was developed and it is validated in different ways (Helbing, 1978).

Sample statements are:

- I feel satisfied with myself.
- I feel inferior.

The next test developed was the Need for Regard scale. It is mentioned in the last line of table 6.

It was discovered empirically, and more or less incidentally, when I attempted to construct a scale for the identification of the tendency to respond to tests in a very socially desirable way.

I started from a tryout scale, based on the concept of Need for Approval, as defined by Crowne and Marlowe (1964).

Factor analysis identified consistently being dependent or not dependent of the appreciation and regard of other people as a separate factor that is different from self esteem.

Examples of a few items are:

- It is not important to me what other people think about me.
- I worry about the impression I am making to other people.

In the way this scale is scored, a high score means being independent of a Need for Regard.

The next step in the development of the battery was an attempt to construct a scale for identity being achieved. In different tryout versions, however, items about external and internal identity showed to be factorially independent. (Helbing, 1977)

External Identity is mentioned in the second to last row of table 6. It indicated to what degree a respondent has the notion that he is known by other people. It has items like:

- Other people understand me well.
- I am like people think I am.

The other four scales in the table refer to "internal identity", that is to the idea that one knows oneself.
The most recent analysis of the scales showed, however, that "internal identity" was not maintainable as a concept of sufficient internal consistency.
It divided into four interrelated clusters, namely: Self Acceptance, Inner Contradictions, Consistency and Self Knowledge.

Items representative of Self Acceptance are:

- As a person I have found my form.
- I know where I stand with myself.

Some Self Knowledge items are:

- I know what is important for me in life.
- I know what I can and what I cannot do.

The difference between Self Esteem, Self Acceptance and Self Knowledge is that in Self Knowledge the individual in a rather factual way informs that he knows his assets or does not.
In Self Acceptance the respondent evaluates whether he came to a balanced state in his personal development and whether he accepts himself as such or not.
The Self Esteem scale contains statements about the degree of satisfaction a person feels about himself.

Consistency is measured by items like:

- My preferences and interests are stable.
- I have the feeling that my personality is changing.

A few examples of Inner Contradictions are

- Internally I am contradictory.
- I have a feeling that I am not one individual, but different persons.

As opposed to the other Global Self Evaluation Scales, a high score on this one is less desirable and means being very contradictory.

One may notice that the questions in all scales ask about identity in a very general sense. There are no scales for identities in specific roles, like identity as a student, sex role identity, occupational identity, etc.

Table 7 shows the correlations between the Global Self Evaluation scales. You will easily see that they all differ significantly from zero.
One might say that the matrix as a whole represents a structure with one general self evaluation and identity factor and a number of oblique group factors.

Table 7: Correlations between Global Self-Evaluation Scales.

1978, N = 263, 14-18 years (J.C. Helbing, F. Oonk)

	Self-Esteem	Self Acceptance	Contradictions	Consistency	Self-Knowledge	Extern. Identity	Need for Regard
Self-Esteem	1.00	.69	- .63	.49	.39	.32	.45
Self-Acceptance		1.00	- .46	.49	.51	.29	.32
Inner Contradictions			1.00	- .43	- .23	- .33	- .34
Consistency				1.00	.30	.31	.26
Self-Knowledge					1.00	.11	.25
External Identity						1.00	.05
(Independent of) Need for Regard							1.00

III. Relationships

Three kinds of relationships between vocational maturity and self concepts have been investigated.

The first study dealt with the question of whether differences in self concept content correspond with differences in vocational maturity.
One might ask if there is any reason for expecting such correlations.
As it has been defined in the theories, vocational maturity is a state of mind that should be developing in everybody, not just in adolescents who see themselves in certain ways, as opposed to others who have different ideas about themselves.
On the other hand, it seems reasonable to expect that the wiser, more independent and more mature students do reach certain levels of vocational maturity earlier, compared to other teenagers in the same circumstances.
These personal characteristics should be reflected in the self concept contents.

For a test of this hypothesis PCP traits that might be connected with wiseness, independence and maturity were selected and correlated with the five vocational maturity scales.
The relevant traits were those that belong to the first two PCP-factors, that is "Prominent and dominant social behavior" and "Reference to behavioral norms".
To this list the traits "Intelligent", "Business-like" and "Ambitious" were added.
Table 8 gives an overview of the selected characteristics and of the results of the study.

Allowing for the possibility that grade level, school type level and age also have an influence on vocational maturity, these variables were held constant. It must be said, however, that the computation of partial correlations had only a slight effect.
Compared to the zero order correlations the partials are sometimes a few decimal points higher and a few more become significant.

In table 8, nearly fifty percent of the correlations are underlined, which means that they are significant.
I am inclined to see this as a substantive support for the general hypothesis that the more independent, wise and mature adolescents are ahead in vocational maturity. At the same time the tendency does not seem strong, because the correlations are not high.

Table 8: Partial correlations between vocational maturity scales and Personal Characteristics Profile scores, controlling for grade level, school type level and age

	PCP-score:	Planning Orientation (CDI 1)	Resources for Exploration (CDI 2)	Insight (CDI 3+4)	Concern about Choice (OCC)	In decision (OCC)	Number of significant correlations
Prominent and dominant social behavior	Independent	.11	.06	-.08	.02	-.18	1
	Assertive	.05	-.01	-.18	-.11	-.04	1
	Sly	.03	-.04	-.18	-.03	-.12	1
	Optimistic	.07	-.01	.05	.01	-.14	1
	Self confident	.15	.03	-.04	.07	-.35	2
	Energetic	.13	.09	.05	.16	-.21	3
	Organizational ability	.15	.09	.00	.08	-.17	2
	Not in the background	.09	.04	-.04	-.05	-.07	0
Reference to behavioral norms	Accurate	.22	.14	.02	.24	-.20	4
	Not changeable	.11	.00	.04	.07	-.22	1
	Zest for work	.20	.21	.02	.26	-.16	4
	Obedient	.20	.12	.04	.29	-.10	3
	Well mannered	.16	.13	.17	.31	-.13	5
	Intelligent	.12	-.01	.16	.15	-.20	4
	Business-like	.20	.19	-.18	.16	-.14	5
	Ambitious	.03	-.03	-.02	.07	-.14	1
	Number of significant correlations	9	5	5	7	12	

1978, N = 263, 14-18 years (J.C. Helbing, F. Oonk).

When you compare the numbers of significant correlations in the last column, you will conclude that students who view themselves as intelligent, accurate, industrious, well-mannered and business-like are the most vocationally mature.
It follows, from a comparison of the number of significant correlations in the bottom row, that the kind of vocational maturity these traits are related to, is primarily represented by Indecision, Planning Orientation and Concern about Choice, in this order.

It is remarkable that students who see themselves as assertive, sly and business-like have a tendency to score lower at the Insight scale.

The second relationship to be studied was that between vocational maturity and self esteem.
It was Korman in particular who stressed the importance of self esteem in occupational choice. In studies by him and other investigators it was shown repeatedly that persons with positive self regard usually choose an occupation that is congruent with their self concepts. Individuals with low self esteem have more problems in making career choices and may decide on occupations that are less fitting to their self images.

There are only a few empirical studies with direct relevance to the relationship between self esteem and vocational maturity. (f.e. Putnam and Hansen, 1972; Dillard, 1976; Lawrence and Brown, 1976)
The results indicate a positive but weak correlation between global self esteem measures and vocational maturity attitude scales.

My hypothesis is that high self-esteem people will be more certain about their occupational choice and will be more ready to decide.
Therefore positive correlations are expected with Planning Orientation and Indecision and not with the other vocational maturity scales.

The first line of table 9 shows the results. The hypothesis is confirmed for Indecision. Planning Orientation has a positive correlation with Self Esteem, but it is not significant.

The final topic is the relationship between vocational maturity and identity aspects.

Research about this topic is scarce. There is an article by Munley (1975) however, in which he reports a positive correlation between

vocational maturity and two measures for Identity Achievement.

The results of our study, which should be seen as exploratory, are summarized in table 9.

Table 9: Correlations between Vocational Maturity Scales and Global Self Evaluation Scales
(1978, N = 263 boys and girls, 14-18 years; J.C. Helbing and F. Oonk)

	Planning Orientation (CDI 1)	Resources for Exploration (CDI 2)	Insight (CDI 3+4)	Concern about Choice (OCC)	Indecision (OCC)
Self Esteem	.11	.00	-.12	.05	-.30
Self Acceptance	.25	-.04	-.13	.01	-.34
Inner Contradictions	-.07	.07	.07	-.01	.32
Consistency	.14	.02	-.17	.06	-.25
(Independent of) Need for Regard	.12	.09	-.14	-.05	-.21
Self Knowledge	.37	.03	.00	.22	-.41
External Identity	.00	-.01	-.23	.00	-.12
Number of significant correlations	4	0	5	1	7

Now let us assume for a moment that all General Self Evaluation scales measure identity aspects. When we compare the numbers of significant correlations in the bottom row with each other, we can conclude that Indecision is the vocational maturity scale most related to "Identity", followed by

Planning Orientation.
Resources for Exploration and Concern about Choice have hardly any relationship with identity variables, however.
Insight is related but has negative correlations, which is a result that I find difficult to explain.

The meaning of our findings might be that Planning Orientation and Indecision measure aspects of vocational development in which the self and its identity are directly at stake. Planning and decision making probably cannot make progress very well if one's identity in relation to occupational choice is not yet crystallized or is problematic.
On the contrary, Use of Resources for Exploration and Concern about Choice probably measure aspects of vocational maturity that are more remote from the self.

When we look further at table 9 and compare the number of significant correlations per identity aspect, it shows that the highest correlations of Planning Orientation and Indecision are with Self Knowledge and Self Acceptance.
There are also significant correlations with Consistency, Need for Regard and Contradictions.
External Identity has the lowest correlations with Planning Orientation and Indecision.
This result seems to show that vocational maturity is more related to "Internal" than to external identity. In other words, knowing and accepting oneself as a person is of more importance for vocational planning and decision making than being certain of one's public self definition.

Finally I want to make a few comments on the meaning of our results. I think they suggest support to the theories that emphasize the importance of the self in vocational development.

As for the instruments used, Self Esteem, Need for Regard and External Identity repeatedly were found to represent different factors in studies with different groups of students. Self Acceptance, Contradictions, Consistency and Self Knowledge were only recently found as different clusters of "Internal Identity" and more research will be necessary to confirm their factorial stability.

It is obvious that with regard to a number of the new scales used in this project, further validity studies are needed.
Assuming their validity, it should also be kept in mind that the relationships between vocational maturity on the one hand and self concepts and identity at the other, were reached using a group of students between 14 and 18 years.
From a theoretical point of view this is a very relevant range of ages.
At the same time it means that our findings cannot be generalized to other developmental stages.
The practical meaning of our results seems to be that they underline the importance of guidance and counselling for self knowledge and self acceptance in relation to the promotion of vocational maturity and decision making.

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